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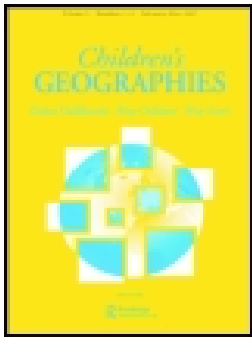
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Children and young people living through the monsoon: watery entanglements and fluid inequalities

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ABSTRACT

This paper focuses on everyday watery relations; children and young people's fluid, messy, affective encounters with the rainy season in India. We attend to the rhythms, depths, capacities and flows of water and argue that a more nuanced understanding of watery entanglements is needed in the context of fluid inequality. Through in-depth, ethnographic research with children and young people, we offer new ways of thinking about watery relations and inequality attending to the material-social-spatial-temporal complexities of living with the monsoon.

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Water; young people; inequality; monsoon; India; entanglement

Introduction

This paper attends to children and young people's everyday, affectual and embodied experiences of living with the monsoon in India. We consider the rhythms, depths, capacities and flows of the monsoon and argue that a focus on the material, social, spatial and temporal entanglements extends and complicates our understanding of fluid inequalities. Our theorisation of watery entanglements is informed by two core bodies of scholarship; first, that of vital materialities (Barad 2007; Bennett 2010) in paying attention to the power of non-human others in the weathering world (Rooney 2019). Second, we draw on the work of feminist political ecologists Truelove (2011), Sultana (2013) and Thompson (2016) to attend to the embodied experiences of water. Whilst we do not frame our argument specifically around gender as an intersectional theme to understand watery relations, we respond to the feminist call for inquiring into the micro politics of the everyday and the body (Sultana 2013) by unpacking the lived, embodied and emotional experiences of the monsoon. In order to understand, manage and address fluid inequalities, we argue that an explicit focus on the entanglement of human and more-than-human bodies, flows and things is needed.

International policy discourse and development research predominantly frame water as an asset to be accessed, used and controlled (Gandy 2004; Sultana 2013). Water as a resource for drinking and sanitation has been a global priority since the formulation of the Millennium Development Goals (MDGs) in 2005 and since prioritised in the 2030 Agenda for Sustainable Development (UN 2017). Whilst we do not dispute this agenda-setting, we critically draw attention to other watery matters and entanglements which compound existing socio-spatial inequalities. This paper seeks to push our understanding of fluid relations, arguing that young people's embodied experiences of water can be just as vital (Bennett 2010) as the dominant focus on water as viewed by global agencies.

We draw on research principally about the everyday experiences of urban change in India, investigating children and their families' relationships with, and responses to urban transformation in Lavasa, a city-building project in the Indian state of Maharashtra (see also Hadfield-Hill and Zara

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2019a). The research set out to explore participants' use and experience of new urban architectures, their everyday mobilities and access to nature and green space. However, as the research progressed, it became evident that the monsoon provided an entry point into exploring fluid relations and intersections with inequality. Water seeped into all aspects of our data collection, it was a point of both convergence and differentiation amongst participants, their families, researchers and the broader community.

The paper begins with a review of relevant literature on water informed by a new materialism and feminist political ecology approach and situates this work in the context of childhood and water. We then propose a framework of entanglement which we believe is necessary to more fully understand the fluid inequalities. The paper then progresses to review a series of fluid methodologies which uncovered children and young people's watery relations. Here we also give a contextual overview of Lavasa, the case study site. The remainder of the paper addresses a series of emotional and bodily impacts of the monsoon. It is children and young people's day-to-day experiences of the monsoon which prompts a new lens on entanglement and fluid inequality.

Watery relations: vital materialities, embodiment and affect

Watery geographies are increasingly on the academic agenda (Gibbs 2014; Clark et al. 2017; Djohari, Brown and Stolk 2017); the scale and scope of watery relations extend from the oceans, to microbes, to bodies, industries and much more. Our human bodies are enveloped by watery substances, from the water that we drink, that passes through our bodies, to the puddles that we run through, the rain and dew that falls on our skin and the clouds that we monitor. The phenomenological properties of water are a core feature of the human experience (Strang 2014). Human senses are affected by the power of water.

Water makes up to 60% of the human body, with its properties enabling diverse functions. Indeed, the capacities of water enable it to 'viscerally uphold, mobilise and sustain bodies' (Attala 2016, 79). On the one hand, yes, water as a chemical compound retains biophysical states, properties and theories; however, on the other, water cannot be seen in isolation from the social, cultural, economic and spatial influences which control and shape it. Indeed, the liminal status of water between nature and culture is widely regarded (Attala 2016). In their work on unpacking the relations between water and society, Krause and Strang (2016, 633) argue that the hydrological and the social should be analysed together, rather than 'treating water as an object of social and cultural production.' Recently, Clark et al. (2017) called for a hydrosocial analysis of water as a 'time-substance' to trace human-water relations. It is the relationality of water, or rather, watery relations and entanglements that we seek to unpack in this paper through the lens of the monsoon. We draw theoretical influence from new materialist thinking in blurring the boundaries between nature and culture – breaking down widely held assumptions about what is nature, what is environment and what it means to be human (Gibbs 2013). A focus on materiality and the vitality of non-human beings, things or actants has been at the core of much of this work (Bennett 2010; Attala 2016). In relation to water, Strang (2014) reflects on its material properties, movements and the multiple affordances between the human and non-human. In a similar vein, Anderson and Wylie (2009) draw attention to the unique properties of watery substances, their multiple materiality, mobility and force. Jane Bennett's work is pivotal here in unpacking the vital materialities of 'things', where 'edibles, commodities, storms, metals [can] not only impede or block the will and design of humans but also act as quasi agents ... [with] tendencies of their own' (Bennett 2010, viii). She reveals the capacities of 'things' to change outcomes and possibilities, to make human beings change their direction and perhaps stop them in their tracks. In thinking through thing power, vital materiality and distributive agency, Bennett (2010) emphasises the importance of the Other as an active agent in the mix of everyday life. Rather than as an inert artefact, the 'thing' is repositioned as having the capacity to affect. Informed by a Deleuze and Guattari ontological framework of assemblage, Bennett argues that agency does not belong to one actor or another, the human or the non-

human, instead it circulates. Indeed, it is these qualities of water in its multifarious affective states that gives fertile ground for exploring young people's everyday encounters with the monsoon.

In developing our theorisation of entanglement we are considering the material properties of water to act as a thing (Sultana 2013) building on the work of more-than-human relations (Whatmore 2002), actants (Latour 2005) and new materialisms (Barad 2007; Bennett 2010). Water is entangled in the social and natural world, being at once culture and nature (Oestigaard 2014; Djo-hari, Brown, and Stolk 2017); indeed, Edgeworth (2014, 157) encourages us to dip our fingers into a flowing river or submerge our bodies in the swell of the ocean, to feel and experience 'these cosmic and planetary forces at work.' Barad (2007) would argue that this is 'diffraction,' a process by which 'agents change each other' (Anggard 2016, 88). In our analysis therefore, we consider the emotional and affective properties of water, its sensuality and capacity to excite, mesmerise, scare, frighten, depress and enliven (Strang 2014; Krause and Strang 2016). The power of the monsoon clearly shows how water determines human and non-human activity and 'illustrate[s] the materialities of power (or the power of materialities)' (Strang 2014, 165).

To understand fluid inequalities embodied experiences of water are vital. With this in mind, we are influenced by Neimanis (2013, 24) who argues that 'we are all bodies of water'; this, she argues, challenges the well-cited assumption that nature is 'out there', rather than within. Through this approach, Neimanis (2013) proposes that human and non-human bodies of water co-mingle according to a series of logics – or hydro-logics. Considering this co-mingling, we turn our attention to the monsoon to contribute to understanding of the multiple impacts that planetary excesses of water can have on children's lives (building on Gibson et al. 2018).

Water, development and inequality

Discourses of watery inequalities (Pacini-Ketchabaw and Clark 2016) and water crises (Neimanis 2016) pervade the development literature. Much of this is informed by urban political ecologists and more recently, feminist thinking, in unpacking the gendered, classed and religious inequalities associated with waters. Research has crossed spatial and temporal scales, from a focus on the city, to daily bodily practices (Truelove 2011). At the city scale, McFarlane's (2013) work shows the complexities of water provision, socio-spatial inequalities and power relations. The research follows the flows of water across and indeed beyond the city, through informal settlements, to bottled drinks factories and the offices of the municipal bodies. He argues that water itself is only part of the story; the policies and materialities of sanitation, housing and agriculture are also important. Of course, Gandy's (2004) work has been influential in shaping how we understand the politics of water allocation in India, specifically Mumbai's urban waterscapes. He clearly articulates the intersecting injustices arguing that access to water exemplifies many of the inequalities in everyday life and is often a point of conflict. In this vein, he speaks of 'hydrological dystopias' (Gandy 2008) to account for the spatial and social variances in the distribution network. Indeed Anand (2011) uses the term hydraulic citizenship to describe 'a form of belonging to the city made by effective political and technical connections to the city's infrastructure' (2011, 542).

At the scale of the body, a feminist political ecology approach (Truelove 2011) has sought to get closer to the everyday politics and the lived experiences of water through attention on water practices, water labour and health implications (Sultana 2013). With an explicit focus on water and social power, Thompson, Gaskin, and Agbor (2017, 141) argue that 'water does not flow downhill independently from people, as modelled in the hydrological cycle. Instead, water flows to power and money' which ultimately shapes 'human experiences of privilege, identity, burden and discrimination' (2017, 153). These literatures highlight the socio-spatial complexities of water access and form a starting point for thinking through the place of social power in our theorisation of entanglement and thus understanding of watery relations.

How water is managed, negotiated and experienced at the everyday scale is increasingly important in the context of global discourses of watery problems (Truelove 2011; Feitelson 2012). The 2015 UN

Sustainable Development Goals, for example, have campaigned to ‘ensure access to water and sanitation for all’ (UN 2017). By 2030, the target is to ensure safe water supply that is affordable; ensure adequate sanitation; improve water quality; reduce water scarcity and implement integrated water management processes. This is a significant challenge; 633 million people are without a safe and affordable source and water scarcity impacts on 40% of the world’s population (UN 2017). Critically, however, the global discourse of water allocation is aligned to the provision of safe, potable water. We are not denying that significant numbers of people face uncertainties with water provision and quality; however, we argue that other fluid relations need consideration in the academic and policy literature, broadening our understanding of watery inequalities. This paper bridges this gap through the lens of childhood, investigating the hydrosocialities of the monsoon and its entanglement with social power (Gibbs 2014); bodies (Krause and Strang 2016) and spaces (Truelove 2011).

Childhood and water

Children’s lives are often at the centre of global and international calls for safe and clean water (UN 2017). It is particularly those who are the most vulnerable, physically and socially, that bear the costs of watery matters and politics (Halvorson 2003). There are four prominent areas of research in the field of childhood and water: (i) the intersections between water, nature and play; (ii) daily interactions with watery chores; (iii) children’s experiences of flooding and (iv) young people’s relationship with the earth and the weathering world. First, children’s entanglements with nature are widely debated across the social sciences. With little room to delve into the complexities of childhood-nature debates (Shillington and Murnaghan 2016; Hadfield-Hill and Zara 2019a; Kraftl et al. 2019), we specifically focus on the place of water. We are drawn to an article published by the Government of South Australia whose framing of childhood and nature is very much in line with the Louvian perspective, where children and childhoods need to be reconnected somehow with the natural environment (Louv 2003). In their recommendations they advocate that children play with the gritty, the wet and watery substances on the muddy register (Nature Play 2017). In contrast to these overtly dualistic responses to childhood and nature, we find nuanced, posthumanist approaches to be more constructive in accounting for children’s diverse relations with natures (see, for example, Anggard 2016). We are also drawn to the work of Pacini-Ketchabaw and Clark (2016) who use Nemanis (2009) to think through the watery logics of pedagogy. In this research, they engage with ‘water’s creative, fluid, dangerous, precarious hydro-logics’ (2016, 110) to offer a new way of thinking through watery relations in the classroom. Recent work on waterscapes has also addressed the affectual geographies of angling (Djohari, Brown, and Stolk 2017), arguing that it is the process and practice of angling within the river environment that provides comfort and solace for young people. Tapsell et al. (2001, 185) also acknowledge the importance of rivers in childhood, suggesting that they have a ‘special affordance ... like coasts, rivers can be viewed as liminal zones ... riverbanks, like the seashore, provide a boundary, a physical threshold between land and water.’ Thus, we build on these literatures to further critique the dualist understanding of nature-childhood relations. A posthumanist approach theorises watery relations as unstable, liminal and affectual. In the context of this paper, we extend this by attending to children and young people’s affectual and embodied negotiations with the monsoon, showing for example what happens when the liminal zone becomes uncertain with landslides, mud and destruction.

Watery chores are a further focus in the literature. In diverse contexts, from India to Malawi, young people’s lives and routines are shaped by watery interactions and familial duties (Punch 2005; Robson 2010; Dyson 2014). In Dyson’s (2014) analysis, water emerges as a key agent by which young lives are organised; from washing bodies and clothes, to fetching and quenching animals; we can see the entanglement of human and more-than-human bodies, flows and things. Others have also written about the labouring work of water collection (Robson 2010), and the integration of working childhoods, mobilities and play, which often pivot around water-based activities (Punch 2005). It is also important to mention that recent work in this domain has focused on gendered

experiences, amongst other intersectionalities, highlighting the 'gendered benefits and vulnerabilities of water access' (Thompson 2016, 1290). Whilst not explicitly about gender, our paper also evidences the watery chores that young people carry out, but importantly theorises the entanglement of these relations, materially, socially, spatially and temporally.

The third area focuses on young people's experiences of flooding. After the floods of 2007 in Hull, UK, Walker et al. (2012) researched young people's experiences of flooding events. The surge, capacities and flows of water in that moment and time were devastating, chaotic and disrupting. However, the research found that children coped with the flood in multiple ways and indeed it was not only a negative experience; fun and excitement was had in a moment of devastation. In the context of flooding in Chennai (India), Krishna, Ronan, and Alisic (2018) show how caste and class were barriers to young people accessing relief and support. Distinct from these examples of flooding, this paper attends to the ongoingness of watery rhythms, rather than one-off events (albeit catastrophic). In this vein, recent research in Australia has more specifically looked at children and young people's experiences of the 'dry' and 'wet' season investigating their positive and negative experiences of such climatic events. Our work builds on this, giving rich ethnographic insight into living with the monsoon and how this is both shaped by and shapes, socio-spatial inequalities.

Building on the above, this paper is a contribution to a growing body of literature which is attuned to young people's experiences of weathering and climatic events, arguing that human bodies are not separate from earthly changes (Hadfield-Hill and Zara 2019a; Rooney 2019; Hadfield-Hill and Zara 2019b) and indeed part of a constantly shifting and morphing 'weather world' (Rooney 2018). Here we build on Rooney's focus on 'weathering' in conceptualising child-weather relations, by focusing explicitly on young people's entanglements with the weather world. Through a focus on entanglement we can offer a more nuanced conceptualisation of fluid inequalities. We step out of a pedagogical context (Rooney 2018, 2019), to shed light on everyday weathering relations.

Theorising watery inequality – entanglement

We argue that a fuller understanding of what watery inequality looks and feels like for young people is needed. To get to the crux of this, we offer a theorisation of entanglement. There are four aspects to this – the *material*, the *social*, *spatial* and *temporal*. In framing our analysis we ask what might entanglement look and feel like? How do young people navigate entangled human and non-human watery encounters? What impact does entanglement have on watery inequalities? It is through this tetralens that we can more fully understand the implications of fluid inequalities for children and young people's lives. A relational framework is vital for unpacking watery entanglements, so is too one which crosses over the dualist human/ nature divide, acknowledging the powers of water and powers of humans in shaping fluid inequality.

In addition to proposing this theorisation of entanglement, our paper also adds the following nuances to the literature. First, we bring into focus a particular hydro-social configuration, the monsoon, which so far has received little attention (but provides ample grounds for a new materialist perspective). Second, we extend our understanding of water-society relations through the lens of a particular age group and through their situated relations with water in a specific 'eco-social' context (Thompson 2016). In our case study site, watery matters and flows combine with particular hydro-geologic formations and land use, producing specific hydro-social configurations and inequalities. This responds to calls by intersectional research on water for a more nuanced and situated understanding of water-society relations which accounts for social and material difference (Thompson 2016). Third, our research extends new materialist theorisations of childhood by shedding light on the socio-spatial-material inequalities embedded in/articulated through young people's embodied and affective relations with water in the context of living with the monsoon. It is through a focus on the body and affect in relation to the monsoon, and its implications with inequality, that we contribute to new materialist theorisations of young people's everyday lives.

Thompson (2016, 1287) develops the notion of intersectionality in the context of ‘ecological dimensions of human experience.’ In doing this she ‘focuses on how the material, spatial, and the temporal dimensions of climate, hydro-geology and physical landscape also intersect with social hierarchies in critical ways’ (1291). We take this intersectional inspired approach to build on our theorisation of entanglement. Through the analysis below we show how (i) a focus on *materiality* matters, and shapes young people’s experiences of the monsoon; (ii) young people’s *social* relations and experiences of social power determine watery experiences; (iii) the *spatial* geographies within which young people are positioned play an important role in their entangled watery relations and (iv) a consideration of the *temporal* is vital in understanding how and why children’s watery relations are in flux. In order to appreciate how young people experience and feel the monsoon, a lens of entanglement is needed, that is to think through the material-social-spatial-temporal dimensions of living with water.

Fluid methodologies

It was not our intention to focus on fluid relations and young people’s everyday encounters with, and responses to, the monsoon. However, in analysing our data we were intrigued by the numerous ways in which water intersected with young people’s lives. The paper is drawn from a large-scale ethnographic research project with over 350 children, young people (aged 5–24) and their families living, learning, working and playing in a site of urban change in India. It was in the context of young people talking about everyday routines that they spoke openly about their relationships, struggles and negotiations with the monsoon. Forty families (over an 11-month period in 2015) engaged with multiple methodologies, including: individual in-depth interviews, guided walks (both physical and using Google Earth), drawings, focus groups, community based workshops and the use of a mobile app ‘Map my Community’ (see Hadfield-Hill and Zara 2018). A key aim of the project was to understand how urban transformation impacts young lives across the social spectrum. For the purpose of this paper, we focus primarily on the watery experiences and narratives of our young participants rather than the broader family unit (however, parents’ voices do appear in places to think through the implications on young lives). We draw explicitly on in-depth interviews and guided walks with 61 young participants (31 males and 30 females aged between 9 and 24). The unique combination of methodologies enabled us to follow children and young people’s engagements with the monsoon spatially and temporally. We found that participants were keen to talk about the properties and capacities of watery substances; they were well attuned to the rhythms of water movement and its depths during the seasons of peak flow and absence. Rooney (2019, 178) advocates walking with children in a pre-school setting and ‘attending to the affects of weather along the way.’ Our research is distinct from this, as we walked with our participants in their own spaces and routines, getting to know their rhythms with the weather world.

Our own watery ethnography was also important, whether it be our experiences of water shortages, navigating the deluge or witnessing the spatial and temporal watery encounters of our neighbours, friends and participants. Indeed, as Singh (1956) notes, ‘to know India and her peoples, one has to know the monsoon’ and experience it personally. Given the length of the ethnographic fieldwork (11 months), we were fortunate to experience our field site across the seasons, which was key to our understanding of the monsoon.

The case study site: A place in the making

The case study site, Lavasa, at the time of the research was a place in the making. Financed, planned and constructed by the private sector, this development was symptomatic of India’s urban agenda, a neoliberal dream for privatised, sanitised urban spaces to appeal to India’s growing middle class. The masterplan for the site comprised of four towns, designed on the principles of New Urbanism, where walkability and access to green space were prioritised. As a greenfield development, set within the

Western Ghats of Maharashtra, this was a significant infrastructural undertaking (particularly given the geographic and climatic challenges of the region). At the time of the research (in 2015), one of the towns, Dasve, was near completion, with the main infrastructures built and in use (including a hospital, higher education facilities, numerous hotels, a school and promenade with shops, cafes and restaurants). A range of housing types had been constructed, including lakeside apartments and hill-top villas, workers accommodation for transient migrants and resettlement homes for those who had been relocated during the build (known as gaothans). Roads, cables and concrete were key constituents of the new urban place. However, during the fieldwork, it soon became apparent that many of our participants lived on the fringe of the site (those in worker accommodation and resettlement homes). The materialities and reliability of infrastructures varied significantly, which had considerable implications for everyday life, particularly during the monsoon.

Our research engaged with diverse socio-economic groups. In order to understand Lavasa as a place in the making, we needed to get close to the lives of (i) the indigenous communities that had ancestral ties to the land (Katkari); (ii) children and their families who were previously living in villages on the land; (iii) the investors and second-home owners; (iv) the children of migrant construction workers who were employed in the building of the development; (v) the commuters and the part-time residents; (vi) and the students who had moved to pursue higher education. This gives a sense of the diverse social spectrum that we engaged with in this research. In terms of the caste of our participants, given the complexities and sensitivities surrounding caste, we did not collect this data. However, through our ethnographic encounters with these diverse groups, we had a clear sense of the socio-economic differences and how this intersected with fluid relations. It is also important to note that the majority of our participants identified as Hindu (85%), with a minority identifying as Parsi (10%) and Other (5%), a point which we will return to in our thinking through fluid relations.

We have already given an indication of the housing typologies across the site but we have not mentioned the materials from which they were built. Some of our participants lived in high-end apartments, designed to be sealed and protected from the wind and rain of the monsoon, others lived in migrant colonies where mud and corrugated metal sheeting were the norm. Then there were the gaothans where houses were made from concrete and were serviced with modest facilities (i.e. water and electricity). Thus the type of housing our participants lived in is crucial in understanding fluid inequalities.

Lastly, the mobilities of our participants are important to acknowledge. We found mobility to be inextricably linked to social status, with middle and higher-income participants using cars and motorbikes to travel walkable distances. Unless the purpose of the walk was for exercise or pleasure, we found that these participants were unlikely to walk (to work for example). It was those participants who lived on the fringes of the development, both socially and spatially, whose primary mode of mobility was walking. It is with these mobilities in mind that later on in the paper we consider the everyday impacts of living with the monsoon. A strength of this research is the socio-economic diversity of our participants; it is the bringing together of these experiences of living in a space of urban transformation that can offer new insights into fluid relations, the monsoon and intersections with inequality.

The monsoon – knowing watery matters

Our research gets closer to young people's everyday affective encounters with the monsoon, a significant annual event by which crops, lives, moments, parties, events, prayers, humans and non-humans were organised. At the time of the research, the state of Maharashtra received 'deficient' rain during the monsoon season (National Climate Centre 2015); indeed, these regional statistics correlated with ethnographic observations of participants witnessing and narrating shifting climatic patterns. Despite this reduced rainfall, the everyday impacts of the monsoon should not be underestimated. From our ethnographic observations and interrogation of watery data, the monsoon was an enabler, a collective event which brought together narratives, stories, myths, routines and mobilities. When

the rain arrived, there was energy in the atmosphere; time was measured by the intensity of green in the landscape and the depth of the water in the lakes. It was a time when families planned their lives according to the periodic rainfall spasms; how to move, where to walk, when to go out and when to stay in. Here we show how young people lived with water, how it shaped their bodies and environments and how it ultimately impacted on their lived experiences of inequality. Existing research on children's experiences of the wet season is limited to the work of Harwood, Haynes, and Bird (2014) who show how the rains both positively and negatively impacted on everyday life (predominantly focusing on play and access to schooling). Whilst Harwood et al. included the voices of children who were both of Indigenous and non-Indigenous heritage, we did not get a sense of the diverse impacts of the monsoon, depending on the backgrounds of the participants. In their analysis, they document that the majority of the children felt excitement with the monsoon and describe a series of games which the winds and rains allowed (i.e. mud skipping, boogie boarding on flooded roads, swimming). In our research however, we get closer to the affectual, emotional registers of the monsoon. Despite the challenges associated with the rains that we will come on to, we found the monsoon to be an enabler for many of our participants. For those children and young people whose families had lived in the region for generations, they were explicit about its rhythms, depths, capacities and flows. In the context of our research, the monsoon was talked of as if it were a body, as if alive, as if a thing (Bennett 2010). This innate sense of knowing watery matters was most pronounced in our discussions with young people. On guided walks, in interviews and in everyday encounters, participants would make year-on-year comparisons with the weight of the droplets which fell from the sky, the place, positioning and speed of waterfalls and most often, the depth of the water in the lakes. In our living with the monsoon (as researchers) we would have almost daily conversations about the shape, opacity and positioning of the clouds, the viscosity of the mist which permeated living spaces and the energy in the atmosphere. In essence, our participants taught us how to 'read the sky'; measuring the cloud distance across the mountain range and the timing of the next deluge, 'counting off the seconds between flash and boom' (Frater 1991, 2).

In searching for other versions of living with the monsoon, we are drawn to Garay-Barayazarra and Puri's (2011) account of 'Smelling the monsoon' in Malaysia, where in a similar vein, bodily senses were important in tracking, monitoring and being with. Indeed, there are also examples of where non-human Others provide markers of change for shifting weather patterns, the presence of June Beetles, for example, to signify the incoming rain. Research in the Andes (Stensrud 2017), also shows how knowing the rains is an important part of social and cultural life; in predicting rainfall, humans monitor the flowering of plants, behaviour of foxes and the flight of seagulls. Garay-Barayazarra and Puri (2011) and Gibson et al. (2018) emphasise the importance of the spiritual in forecasting changing climates. In Hindu religion, water plays a significant role in everyday social and cultural practices, as Schelwald-van der Kley and Reierkerk (2009, 47) remind us 'the word Hindu has everything to do with water, as it is derived from "Sindhu", a Sanskrit word for the Indus, the longest river in the Indian subcontinent ... water in Hinduism has a special place.' This special relationship was evident in our data given that the majority of our participants were Hindu. The example we draw on below shows how Hindu festivals were often used as markers of time for watery relations and predicting forthcoming rains. Here one of our participants, an 18-year-old male, speaks of the Rakshabandhan festival, comparing its timing to the depth of the water in the reservoir. He had lived on the land all of his life, so was well versed with knowing the water and its capacities:

There are many changes ... around the festival of *Rakshabandhan*, it used to get full [the reservoir]. (YR91, Male, 18)

These descriptions of knowing watery matters, knowing the depths of the water bodies, knowing the viscosity of the falling droplets, knowing the timings of the rain in line with festivals and religious celebrations very much relate to Ingold's (2010) ways of knowing the weather. Indeed, he is clear

that the weather and human bodies are in tune and aligned; 'the experience of weather lies at the root of our moods and motivations; indeed it is the very temperament of our being' (122).

From joy to despair – watery relations and the emotional register

The broader region of our case study area, the Sahyadri (or the Western Ghats) mountain range was a popular tourist destination, particularly during the monsoon (promoted as a day excursion from Pune). During the rainy season the waterfalls, the lush landscapes and indeed the water itself are advertised widely both within Maharashtra and beyond, with tourists coming from all over India to experience the energies of the monsoon. The quotes and fieldnote extract below are indicative of the comments made by participants about this animated response to the rains which people had, particularly the tourists:

The rains have begun in earnest and tourists are flocking – full cars and loaded motorbikes make their way up the mountain. They stop at the waterfalls, dance in the water – getting wet seems to be the order of the day. (Fieldnote entry, Author 1)

... people enjoy the rain, running around... they just go crazy ... and they stand under waterfalls. (YR83, Female, 16)

Most of our participants, regardless of socio-economic background, expressed relief with the initial onset of the monsoon; it was a time when the temperature softened, the rivers began to flow and the crops greened with the deluge. The children who had lived on the land since birth spoke positively about the initial onset of the rains, they described how the deeper water in the rivers and lakes meant that they could wash their livestock, drink fresh water from the mountain and swim with their friends. When the rains arrived playful opportunities emerged. In the quote below, one of our participants describes his encounter with water when the rains arrived:

We sometimes drink good water of rivers. I and my friends swim in the river ... and we wash our cows also in river ... in rainy season, the river will be full ... we will go to swim. (CH04, Male, 11)

Similarly, the higher education students were positive about the arrival of the rains, with the cooler temperatures and associated energies. Given that these students had travelled from all areas of India (i.e. Ahmedabad, Mumbai and Delhi), many explained that they had not had prior experience of such climatic episodes. One 18-year-old male describes his encounter with the initial stages of the monsoon:

[It] is like a treat to your eyes. All around you. When you are going for a long drive, with your windows ... and sun roof open, then you go ... if it's a rainfall, then it's nothing like it ... very soothing and very refreshing ... to our heart and soul. (EC22, Male, 18)

However, this quote prompts us to further unpack this experience in relation to inequality. Here the student describes being in a car, driving through the lush mountains with the roof down. Young people with their heads cranked into the breeze and arms outstretched, feeling the mist of the cloud running through their hands was a common sight. The participant described the monsoon as a treat to his eyes, but he has a choice, and the opportunity of shelter. Many of our participants however, were not in a position to make these choices, they did not have cars to get into, with their main mode of mobility being by foot. Being able to get dry and stay dry, was a luxury which was only afforded to some of our participants.

Once the monsoon takes hold and the earth becomes saturated and unstable, this is when our participants experienced the most severe disruptions. For those living on the fringes of the newly built development, it was particularly difficult to get to school (and for their parents to work). In the quote below, the participant, aged 9, showed the researcher part of the road which disintegrated in the rain, cutting off their access to school and other everyday infrastructures. She had lived on the land since birth, part of the Katkari indigenous community, and her usual route to school took an

hour, by foot – in the monsoon season, this route was severed and she could not attend. During an interview about her everyday mobilities and school, she simply said:

If there is water here then we cannot go. (YR70, Female, 9)

As the monsoon progressed and the impact of the water and the mud became more acute, children and young people's mobilities (whether for play or otherwise) was negatively impacted. The quote below is from another young person who had lived on the land since birth, she acknowledged the adverse relationship between mud and opportunities for play:

There is mud everywhere ... I don't get to play. (YR75, Female 10)

Thompson (2016) offers a gendered analysis of watery relations. Whilst this was not an explicit focus of our research, we found that the mobility restrictions which faced our participants during the monsoon were gendered. The majority of our female participants from low-income backgrounds had to rely on male family members and friends to get around during the monsoon season, when walking became impractical and at times impossible during the heavy rains. Given that this paper is about young people's experiences it is appropriate to mention the wider family unit and the social and spatial aspects of entanglement which impact on young lives. Several of the mothers of our young participants worked as cleaners, cooks or meal attendants in the school. They would walk for over an hour, through the forest, often with other female colleagues. However, during the monsoon the forest path became impassable and the children's bus service was disrupted. Many of these mothers would have to rely on male members of the family for a lift or not be able to go to work at all, which had a direct impact on family income. The monsoon disrupted routines and income sources of the most vulnerable families. Despite the nuances of gendered watery relations, the power of water to have an impact on landforms (Thompson, Gaskin, and Agbor 2017) was acutely felt by all of our participants, from the changes it ignited in the physical properties of mud, to the washing away of entire segments of roads and hillsides.

Clearly then, materiality matters in watery entanglements – the materiality of the water and earthly substances, the materialities of transport, of shelter, of clothing – all of this matters. So too do the temporal aspects of these entanglements. The research took place over an 11 month period, so in essence we lived and researched with the monsoon. Over the weeks and months of the rainy season, we saw and experienced a whole range of feelings along the emotional register. Singh (1956, 93) acknowledges these emotional shifts, commenting that 'after a few days the flush of enthusiasm is gone. The earth becomes a big stretch of swamp and mud.' The tourists experienced the monsoon in small doses, sometimes for an afternoon, or perhaps a few days. They were able to retreat to their car, apartment or hotel to get dry. However, for many, living with the monsoon, day in, day out, it was demanding – as we show later on in the paper, the mental and physical impact on young bodies was significant.

Socio-inequalities and the monsoon: a focus on the materialities of home

It became strikingly clear through our research that whilst the rain democratically falls over everyone, it is the conditions which you live in which determine the impact of the rain on your everyday life. Whilst for many, the rain brought with it an immense pleasure and rooted people in place, for others, the very matter of the watery substance accentuated a politics of difference. Singh's (1956, 93), account of the impact of the monsoon describes an all too familiar scenario where 'the mud walls of huts melt in the water and thatched roofs sag ... houses near the riverbanks are swept down to the sea.' In comparison to the research by Harwood, Haynes, and Bird (2014) which did not identify differences in children's housing structures, young people in our research spoke of entire buildings and homes being washed away. Some participants had witnessed buildings collapse, others experienced boulders crashing into their homes and saw the land fold under the weight of the water. Ongoing struggles included water ingress through wooden roofs and mould multiplying in damp

corners. The quotes below are indicative of the experiences of many of our participants who lived in houses built from mud, wood and corrugated iron. These children all previously lived on the land prior to Lavasa being developed, so their families were familiar with the challenges associated with the monsoon. The first is from a 11-year-old male, he expressed concern that the buildings would not be able to cope with the weight of the rain. In the second quote, the participant tells the researcher about the position of this home at the bottom of the mountain and the potential danger of falling debris. The third, speaks of her experience of living in a wooden house, which in the rainy season, her family plastered with mud, to try and prevent water ingress:

I feel worried when it rains [the buildings] will collapse. (CH59, Male, 11)

... we are living at the foothills of the mountain. When the rain comes, all the stones fall down ... then all the mud and whole rain and dust comes down into our houses. (CH04, Male, 11)

... yes, wooden house and this is the mud ... when the water falls ... it should not enter our house ... this wooden house is plastered with mud so water can't come inside ... that is why we have done like this. (CH15, Female, 11)

It was not an accidental occurrence that these young people lived in wooden and mud structures at the foothill of the mountain. This was a direct result of the socio-material spatialisation of unequal urban development. Some of our participants were able to afford solid (and thus watertight) housing in safe(r) locations, and others were much more exposed to the threats of the relentless rain. The destructive power of water (Neimanis 2013) was evident in our ethnographic observations and data analysis. Water had the power to destroy, to cut off livelihood (landslides) and cause physical and mental destruction. Participants were keen to speak about the significant changes which had happened to landforms in the name of urban development. Parents of our participants claimed that land excavation and blasting had made the land weaker and prone to landslides during the monsoon. Excavation also impacted on natural water sources which led to water insecurity and dependency. The following quote from a parent is indicative of this:

Because of the rocks some lost their cattles. Not only others, even I suffered a lot. One night, my daughter and I were sleeping. They were constructing a road near my house. At around 11–12 in the night, when we were fast asleep, a huge rock fell directly into our house. I can still show you the damage it caused to my house. Almost twice or thrice we had stone falling in our house after they did blasting. Our cow died. We incurred a huge loss. (PA51, Female, 26; participant's parent)

With the relocation to gaothans many participants expressed an improvement in living conditions. Particularly, in relation to water provision which had a direct impact on female participants, as the watery chores were primarily the role of women and girls (as per Thompson, Gaskin, and Agbor 2017). However, the relocation strategy also meant that housing inequalities widened. Other participants reported worsening watery disruptions, explaining that water infrastructures and allocation were unevenly distributed, with the relocation hamlets getting more facilities, such as water tanks and pipelines. This analysis has fed into our understanding of watery entanglements, particularly the social and spatial aspects of fluid inequality.

Thus far, we have focused on the experiences of those children and young people living in sub-standard housing, what then of those living in the newly constructed flats? Surprisingly, our data also showed that residents found these properties to be ill-equipped for the externalities of the monsoon. On many occasions, participants passed comment during interviews that the houses had not been designed to withstand the force of the monsoon, in a region which is reported to receive the second highest rainfall in India. Whilst these houses sprang leaks and had issues with mould spores, the extent of the infiltration was minimal in comparison to the previous examples we have shown. There were further instances of the newly built environment being ill-prepared for the force of the monsoon. Flash flooding was a frequent occurrence with the impermeable surface of the cemented pathways proving to be apt gullies and stores of water. It was clear that urban design had not accounted for the force of the weather.

This analysis has shown how the social-material-spatial circumstances of participants were vital in shaping their experiences of watery inequalities. Many lived in sub-standard housing which was not equipped to withstand the impact of the rain. The vital materialities and watery relations between the land, the rain, the children's bodies, the mud and their housing structures in many cases exacerbated socio-economic difference. In the final section, we expose further inequalities, in relation to the impact on children and young people's bodies, building on recent interest in 'the human body and elements' (Rooney 2018, 6) and 'situated watery skin encounters' (Waitt and Welland 2019, 26)

Socio-inequalities, the monsoon and the body

Whilst, on the one hand, the monsoon brought with it relief and respite from the rising heat, on the other, the physical and mental impact of the rain on young people's bodies were enduring. As we have evidenced, water seeped into their homes and living spaces, thus, their bodies were in close proximity to water. Surprisingly, there is a distinct lack of literature on the bodily impacts of rain, although the emotional effect of severe climatic shifts have been recorded in the state of Maharashtra in response to drought in the region. Udmale et al. (2014), found that suicide was one of the major causes of death amongst farmers, due to lowered income, growing debts and reduced social status leading to depression. In relation to children's bodies, Harwood, Haynes, and Bird (2014, 41) briefly mention bodily impacts of playing in the rain 'such as worms getting into their skin ... becoming sick ... or contracting meningococcal if they accidentally consumed the water.'

We noted striking differences in the bodily impacts of the rain based on the social background of our participants – a further entanglement. As previously mentioned, young people studying for higher education initially liked the rain. However, we found that as the intensity of the rain progressed through the season our participants experienced significant mental challenges, particularly due to the isolation which the monsoon brought with it. Nested in the valley with limited mobility, one participant described it as akin to a 'jail of mountains.' For those who had come to study in Lavasa, they found themselves trapped (away from the comforts of their homes and families during term time); these participants often spoke about being lonely, frustrated, isolated and depressed during this climatically intense season:

[The] monsoon, it was so depressing ... very depressing, I am not a rains person ... like the second you stepped out of the hostel you are drenched ... it was a nightmare. (EC25, Female, 19)

In contrast, participants whose families had lived on the land for generations or who were children of migrant workers, spoke of anxieties associated with the physical impacts of the rain. We have shown elsewhere that everyday disruptions had a significant impact on access to work, education and ultimately, as we will show, their bodies. In the quote below, one of our participants expressed a fear regarding the arrival of the monsoon, in anticipation of these bodily reactions:

I have fears for the children who are small. Now rainy season will start after summer, then all the rain will come. Children will play but they will become sick. (CH04, Male, 11)

There were diverse bodily impacts associated with the rain. During an interview, one of our participants described how her body reacted to the monsoon, showing us the fungal infection spreading up her legs:

I don't like it [the rainy season] ... a fungal infection is formed on the legs during the monsoons ... like this [shows the researcher]. (YR73, Female, 11)

The Indian media often report on the health implications of the monsoon, particularly for children (see, for example, the Times of India 2013). Indeed, recommendations include avoiding getting wet and drenched, the application of anti-fungal powder, changing wet clothes and shoes immediately and having a wash after being out in the rain. However, many of our participants (those who lived in sub-standard housing) were unable to mitigate the impacts, many due to only owning

one change of clothing, which once wet, remained so due to the humidity. Our young participants (under 10) mainly wore sandals or no shoes at all, meaning their feet were routinely exposed to the damp and wet, causing fungal skin conditions. Participants also complained of breathing problems induced by mould spores in their homes and schools. Indeed, here we can relate to Waitt and Welland (2019, 26) when they say that 'no longer is the figure of the body conceived as a container of difference, but instead difference emerges relationally through the connections and disconnections between social and material entities.' Our participants did not have the capacity to afford creams, ointments and medicines, thus their experiences were embodied through watery entanglements (material-social-spatial-temporal). In the context of our research, the monsoon reinforced and compounded existing inequalities, and critically, young people's bodies were susceptible to watery vulnerabilities.

Conclusion: watery entanglements and fluid inequalities

The focus of this paper has been on children and young people's lived, affective and embodied experiences of the monsoon in Maharashtra, India. Here we have sought to extend current understanding of children's relations with water, showing that water infiltrates and shapes young lives in all sorts of ways – beyond water as a potable source, for play and education. We have drawn attention to the diverse ways in which water infiltrates young lives – their routines, homes, minds and bodies and proposed a more nuanced understanding of entanglement through a focus on materiality, social relations, spatiality and time, exposing deeper geographies of inequality in relation to water.

Through young people's accounts of living with the monsoon, we have been able to complicate the existing theorisation of fluid relations through a focus on *entanglement* to encompass multiple intersections with inequality. First, we argue that bringing materiality into the discussion of watery relations has both exposed a series of socio-spatial inequalities and shown that materiality itself plays a vital role in how inequality is experienced on an everyday basis. Materiality matters, whether thinking about the materiality of the water itself (viscosity), the materiality of landscapes (i.e. mud), the materiality of young people's bodies (i.e. skin) all have a significant bearing on the impacts of the monsoon. The materiality of young people's homes also mattered to their experiences, with those living in newly built constructions having relative protection from water ingress and the wild elements. Conversely, those children living in sub-standard housing repeatedly voiced challenges associated with water entering their private living space and the associated impacts. Thus, considering the socio-spatial specificities of young people's watery encounters is vital in understanding fluid inequalities. The analysis also considered the impact on young people's bodies (physically and mentally). How water infiltrates the pores of children's skin and their minds further exposes a fluid inequality – influenced by this complicated watery entanglement. The analysis also showed the temporal aspects of entanglement. Our research exposed a series of everyday precarities of living with the monsoon, some of these were fleeting, others long-lived. However, we found that ongoingness (Horton and Kraftl 2006) featured in many of the young people's accounts – they spoke about putting up the plastic sheeting, to carry on selling, carry on playing, carry on working and carry on learning. Our participants coped and lived with watery absences and extremes. Despite the vulnerabilities that we exposed, where watery relations are both shaped by and perpetuate socio-spatial inequalities, we argue that temporal entanglements are crucial to understanding how children and young people live with the monsoon.

This research was set in the context of urban transformation where the land was being transformed, manipulated, blasted and concreted. Ingold (2010, 126) reminds us that 'hard surfacing cannot withstand the element forces of the sky and earth that erode it from above and subvert it from below' – the heat, the wind, the rain, the elements, all play a part in watery entanglements – impacting on young lives in so many ways. This paper has provided a framework for thinking through young people's entanglements with the weather world. We have uncovered material, social, spatial and temporal dynamics involved in shaping young people's embodied relations with the monsoon.

We encourage researchers and international agencies to think with the weather in uncovering the complexities of young people's entanglements with water and social inequality.

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